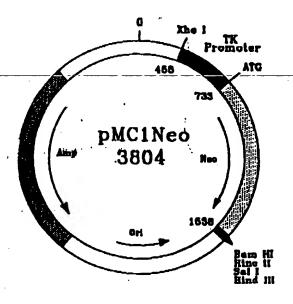
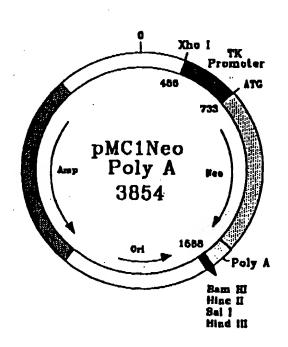


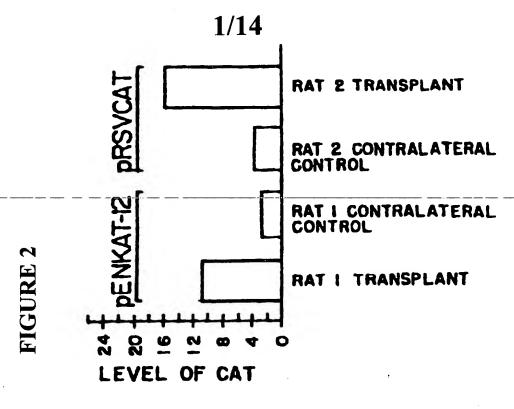
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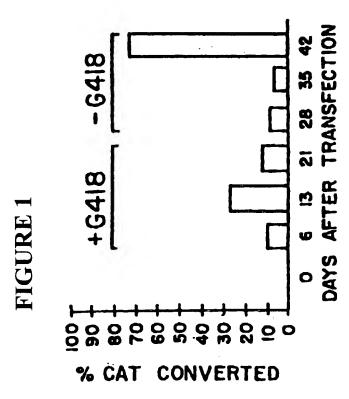


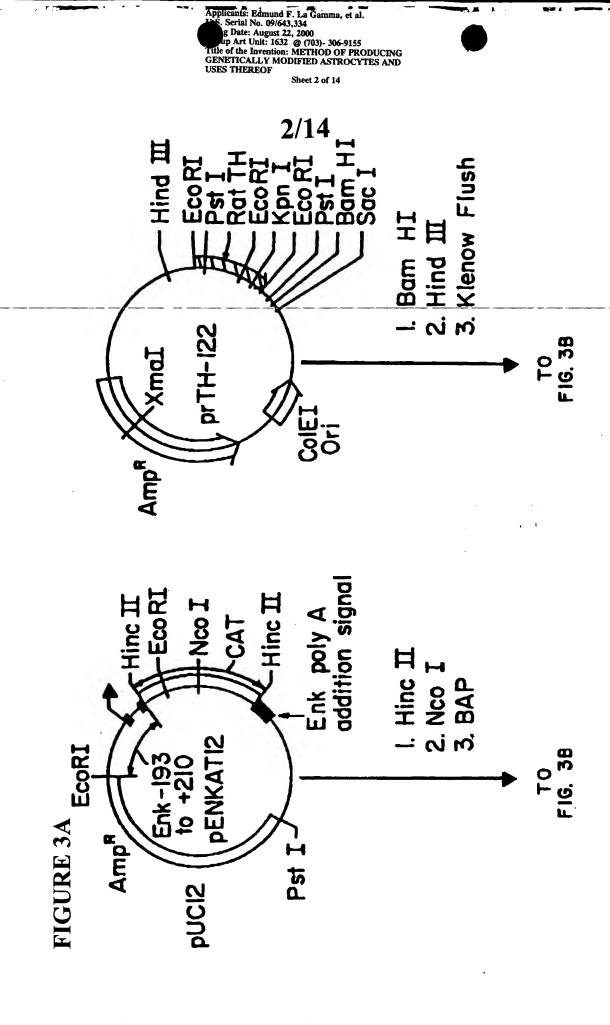




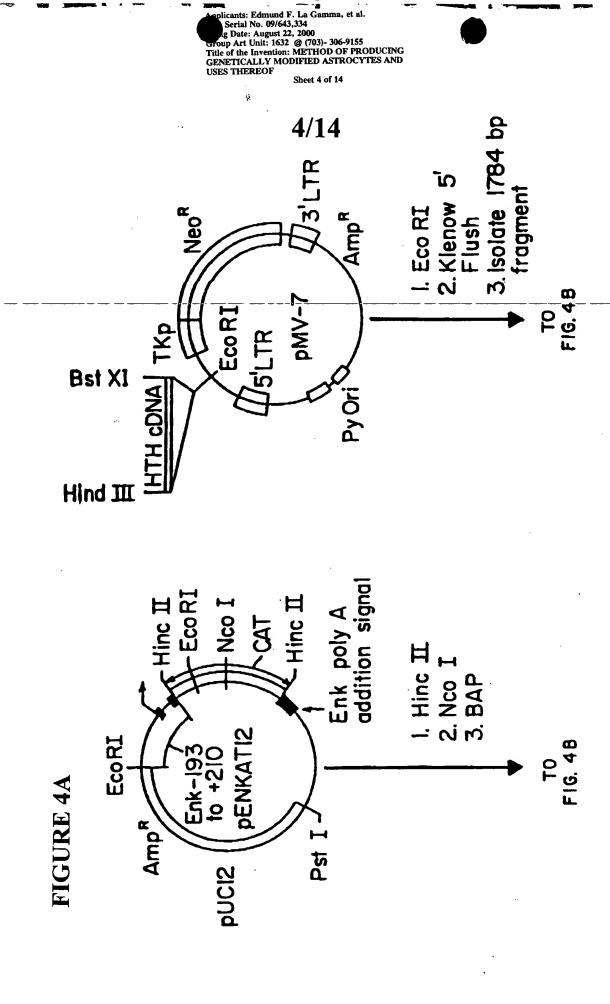
11099 North Torrey Pines Road, La Jolis, CA 92037 Technical Barvices: 1:800-548-1113 or 819-535-5420 To Order: 1-800-424-544 Serial No. 09/643,334
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USES THEREOF
Sheet 1 of 14







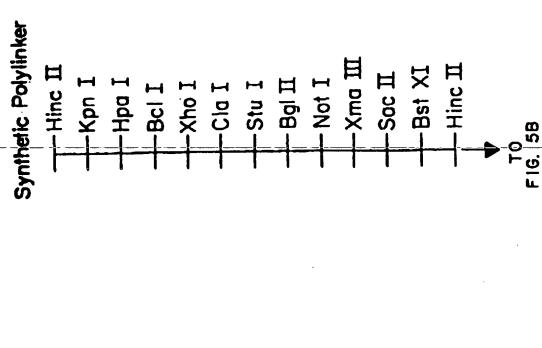
Applicants: Edmund F. La Gamma, et al.
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GENETICALLY MODIFIED ASTROCYTES AND
USES THEREOF
Sheet 3 of 14 Sheet 3 of 14 3/14 ∼Eco RI √Hinc III /Bom HI Flushed) /Hind 田 Flushed) Flushed EcoRI PstI Flushed BamHI Committee Hind III Eco RI Raj TH Eco RI FROM FIG. 3A Enk poly A addition signal -Eco RI -(Hinc II / -Eco RI -Pst I Eco RI **PENKTH2** Enk-193 to + 210 Pst Amp -Hinc H pUC12 Eco RI FIGURE 3B FROM FIG. 3A Amp<sup>R</sup> Pst I **pUCI2** 



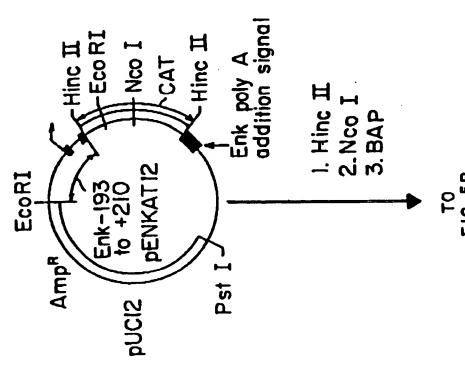
Applicants: Edmund F. La Gamma, et al.
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USES THEREOF
Sheet 5 of 14 Sheet 5 of 14 5/14 (Hinc II/EcoRI/Hind III) -(Hinc II/EcoRI/BstXI) Enk poly A addition signal HTH CDNA HTH CONA FIG. 44 Eco RI PENKHTHI ENK ► Hinc II 4. Ligase Amp<sup>R</sup> PUC12 Pst Eco RI FIG. 4A FIGURE 4B Pst I Amp<sup>R</sup> **pUCI2** 

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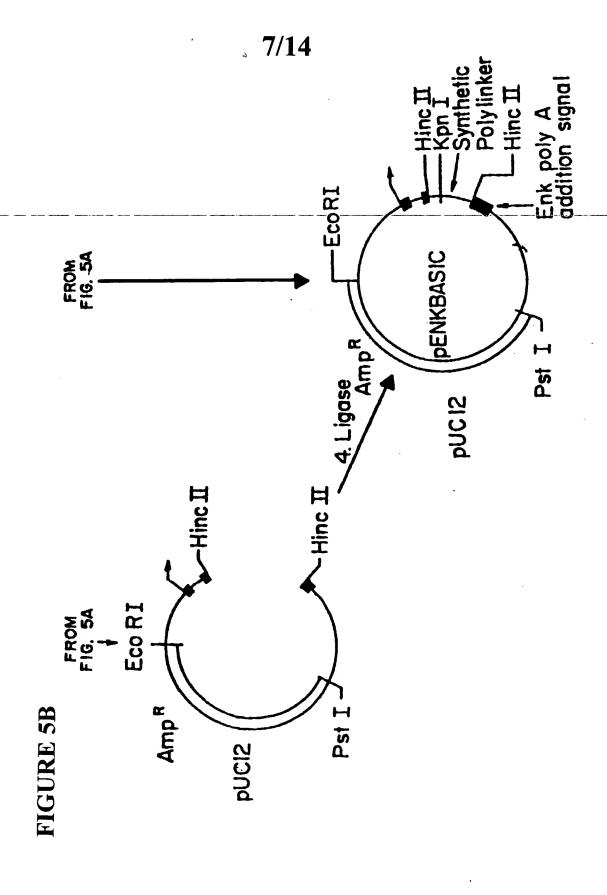
Serial No. 09/643,334

ng Date: August 22, 2000

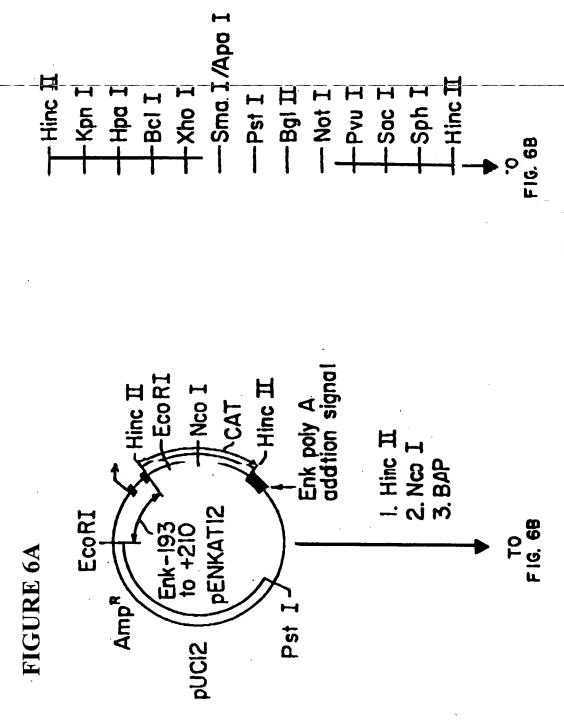
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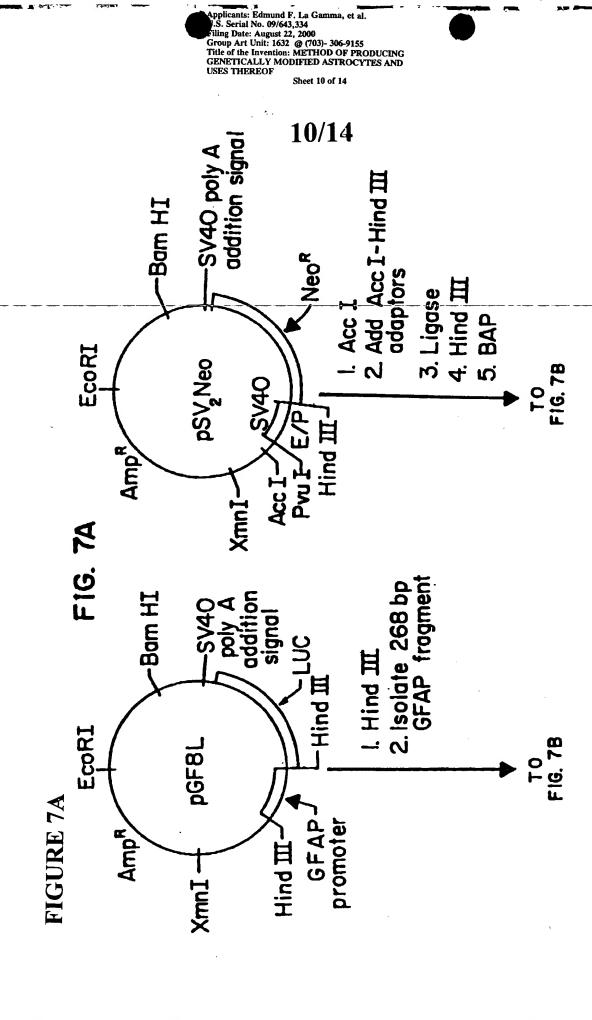


A Cants: Edmund F. La Gamma, et al. erial No. 09/643,334
Date: August 22, 2000
Group Art Unit: 1632 @ (703)- 306-9155
Title of the Invention: METHOD OF PRODUCING GENETICALLY MODIFIED ASTROCYTES AND USES THEREOF
Sheet 9 of 14 Sheet 9 of 14 9/14 Hinc II Kpn I Synthetic Polylinker Enk poly A addition signal -EcoRI 4. Ligase Amp Pst I Eco RI Amp<sup>R</sup> Pst pUC12

FROM FIG. 6A

FROM FIG. 6A

FIGURE 6B



pplicants: Edmund F. La Gamma, et al.
S. Serial No. 09/643,334
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USES THEREOF : Sheet 11 of 14 11/14 -SV40 poly A addition signal Bom HI EcoRI FIG. 7A ·Bam HI 「Hind 由 Amp" AccI XmnI-目 puil Ligase EcoRI pGF8Neo GFAP -/ promoter Boli Apar Hind Amp<sup>R</sup> Acc I-FIG. 7A GFAP promoter FIGURE 7B

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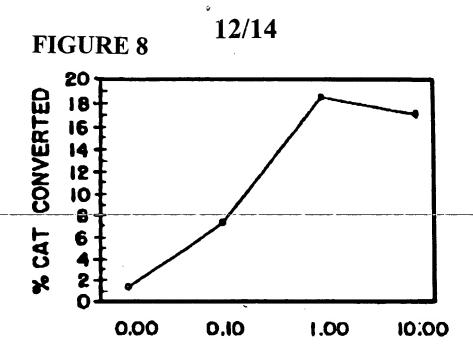
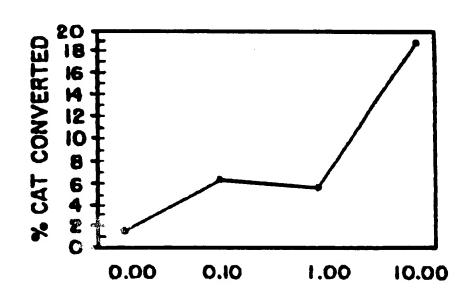


FIGURE 9



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FIGURE 10

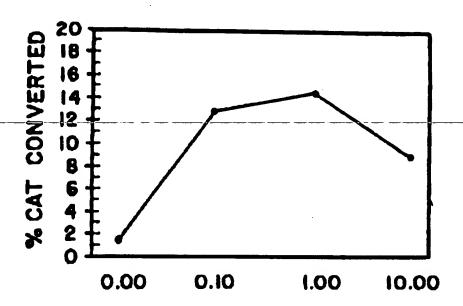
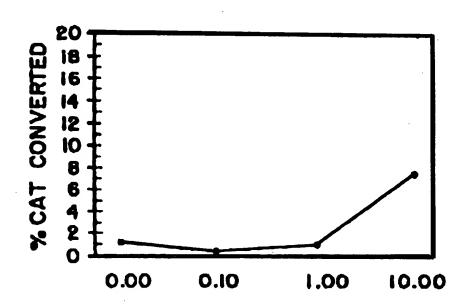


FIGURE 11



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Title of the Invention: METHOD OF PRODUCING GENETICALLY MODIFIED ASTROCYTES AND USES THEREOF Sheet 14 of 14 14/14 NATIVE RAT PREPROENKEPHALIN FRA LEVEL! DOPAMINE TREATMENT DOPA Veh FIGURE 13 2 % 250. 8 OF 8 8 8 8 CONTROL ANTAGONISTS DZ BLOCKER DI BLOCKER **AGONISTS** DI/D2 AGONIST D2 AGONIST DI AGONIST + DI/D2 BLOCKER DOPAMINE + D2 BLOCKER FIGURE 12 + DI BLOCKER DOPAMINE ALONE VEHICLE CONTROL 9 9 DENSITY UNITS 1